

JFL 2674

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gary B. Gordon et al.

Examiner: Abbas I. Abdulsalam

Serial No.: 09/812,252

Group Art Unit: 2674

Filed: March 19, 2001

Docket No.: 10010189-1 (A310.105.101)

Due Date: March 14, 2005

Title: IMPEDANCE SENSING SCREEN POINTING DEVICE

AMENDMENT AND RESPONSE

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Amendment and Response is in reply to the Non-Final Office Action mailed December 14, 2005. Please amend the above-identified patent application as follows:

Amendment and Response

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IN THE SUMMARY

Please replace the paragraph beginning at page 3, line 20, with the following re-written paragraph:

One form of the present invention provides an apparatus for controlling the position of a screen pointer for an electronic device having a display screen. The apparatus includes a plurality of sensing elements against which a portion of the tip of a human digit may be placed. A controller coupled to each of the sensing elements senses an electrical property at each of the sensing elements. The controller is configured to generate pixel values representing the portion of the tip of the digit placed against the sensing elements based on the sensed electrical property at each of the sensing elements. The controller is configured to generate movement data based on a comparison of successively generated sets of the pixel values. The comparison includes comparing a first one of the sets with at least one pixel shifted version of a second one of the sets. The movement data is indicative of motion of the tip of the digit across the sensing elements.

Another form of the present invention provides a method of controlling the position of a screen pointer for an electronic device having a screen display. A portion of an appendage of the human hand is placed against a plurality of sensing elements. An impedance is sensed at each of the sensing elements. Digital values representing the sensed impedance at each of the sensing elements are generated. The digital values represent digital images of the portion of the appendage placed against the sensing elements. At least one version of a first one of the digital images is correlated with at least one version of a second one of the digital images to generate motion data indicative of motion across the sensing elements by the appendage. The position of the screen pointer is adjusted in accordance with the motion data.